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Agricultural.

SCIENTIFIC FARMING AT ROTHAMSTED.

In the November number of the *Popular Science Monthly* there is an interesting paper from Prof. Manly Miles, so long connected with our State Agricultural College but now a resident of the State of New York, on "Scientific Farming at Rothamsted." The paper aims to sum up in a brief and concise manner what has been accomplished for practical agriculture by the series of experiments carried on at Rothamsted, England, by Messrs. J. B. Lawes and J. H. Gilbert. The Professor gives in a brief paragraph the biography of these two men, who have made their names known to all civilized nations by the eminent services they have rendered practical as well as scientific agriculture. Rothamsted is situated in the County of Hertfordshire, England, about twenty-five miles from London. It was here Mr. Lawes was born in 1814, and here, after passing through the public school at Eaton and the Brasenose College at Oxford, that he began his experiments and investigations into agricultural problems. Mr. Miles says:

"Soon after taking possession of his hereditary property at Rothamsted in 1834, he began a systematic course of experiments with different fertilizers, first with plants in pots, and afterward in the field.

"The researches of Saurisse on vegetation were the chief subjects of his study to this end. Of all the experiments so made, those in which the neutral phosphate of lime in bones, bone-ash, and apatite, was rendered soluble by means of sulphuric acid, and the mixture applied to root-crops, gave the most striking results.

"The results obtained on a small scale in 1837-1839 were such as to lead to more extensive trials in the field in 1840 and 1841, and subsequently."

In 1843 more systematic field experiments were commenced, from which time the foundation of the Rothamsted Experiment Station may be said to have commenced. It has been maintained entirely by Mr. Lawes, who, besides, has set apart a fund of £100,000 (\$500,000) and certain areas of land for its continuance after his death.

The general scope and plan of the field experiments has been to grow some of the most important crops of rotation, each separately, year after year, for many years in succession on the same land, without manure, with farm-yard manure, and with a great variety of chemical manures; the same description of manure being, as a rule, applied year after year, on the same plot. Experiments on an actual course of rotation, without manure and with different manures, have also been made. In this way experiments have been conducted with thirty-seven plots of wheat for thirty-nine years; on twenty-nine plots of barley for thirty-one years in succession; on oats, six plots for ten years; on wheat alternated with rye, two plots for thirty-one years; on different descriptions of wheat for fifteen years, with plots now numbering twenty; on beans ten plots for thirty-two years; on beans alternated with wheat, ten plots for twenty-eight years; on clover, with a fallow or a grain crop intervening, eighteen plots for twenty-six years; on turnips, forty plots for twenty-eight years, including three years with barley; on sugar beets, forty-one plots for five years; on mangold-wurzel, forty-one plots for seven years; on potatoes, ten plots for seven years; on rotation, twelve plots for thirty-five years; on permanent grass land, twenty-two plots for seven years. This enumeration will serve to show how extensively experimenting is being carried on.

Comparative experiments are also being made with different manures on other descriptions of soils and in other localities. Samples of all the experimental crops are taken and brought to the laboratory. Weighed portions of each are partially dried and preserved for future reference or analysis. Duplicate weighed portions of each are dried at 100° C., the dry matter determined, then burned to ash on platinum sheets in cast-iron muffle. The quantities of ash are determined and recorded, and the ashes themselves are pre-

served for reference or analysis. In a large proportion of the samples the nitrogen is determined, and in some the amount existing as albuminous, amides, and nitric acid.

In selecting cases—illustrating the influence of season, manures, exhaustion, etc.—complete ash analyses have been made, numbering in all more than seven hundred. Also in selected cases illustrating the influence of season and manuring, quantities of the experimentally grown wheat-grain have been sent to the mill, and the proportion and composition of the different mill products determined.

In the sugar beet, mangold-wurzel, and potatoes, the sugar in the juice has in most cases been determined by the polariscope, and frequently by copper also.

In the case of the experiments on the mixed herbage of permanent grass land, besides the samples taken from the determination of the chemical composition (dry matter, ash, nitrogen, woody fibre, fatty matter, and composition of ash), carefully averaged samples have frequently been taken for the determination of the botanical composition. In this way, on four occasions, at intervals of five years—viz., in 1862, 1867, 1872 and 1877—a sample of the produce of each plot was taken and submitted to careful botanical separation, and the percentage, by weight, of each species in the mixed herbage determined. Partial separations, in the case of samples from selected plots (frequently of both first and second crops), have also been made in other years. This is a condensed statement of the plan of the field experiments, and brief outline of the work performed in connection with them.

More than one thousand samples of soil have been taken from the experiment plots, at different depths, for the purpose of analysis, to ascertain the rate of soil exhaustion under different conditions, and to trace the relations of the soil to the crops grown and to the manures applied. For nearly thirty years the rain fall has been measured in a gauge having an area of one thousandth of an acre, and frequent analyses have been made to determine the available supply of combined nitrogen in the form of ammonia and nitric acid that can be obtained by plants from this source. In some cases the chlorine has also been determined. The absorptive capacity of soils and subsoils for water and ammonia has likewise been investigated.

The quantity and composition of drainage waters under various conditions have been the subject of elaborate and extended experiments for many years, and the results obtained are of the greatest importance. Experiments were made for several years with plants representing the gramineous, the leguminous and other families, and also with evergreen and deciduous trees, to ascertain the amount of water given off during their growth.

Observations on the character and range of the roots of different plants, the relative development of leaf and stem, and their composition at various stages of growth, have been made in connection with experiments to determine the differences in the amount and constituents assimilated by plants of different botanical families, under similar conditions, and of the same plant under varying conditions. From these investigations, so far as they have been published, it appears that the chemical relations of the plant and soil are, to a great extent, determined by botanical and physiological conditions.

The legitimate aim of all systematic, exact experiments is to lay a foundation of well ascertained and closely related facts on which may be developed a superstructure of science to supersede the theoretical speculations which form an important part of the prelude of scientific discovery. In this work of reconstruction, Drs. Lawes and Gilbert have for many years occupied a prominent position, and a full account of their labors would involve in the record a history of agricultural science for the past half century.

The eminent services of Drs. Lawes and Gilbert, in the improvement of agriculture and the advancement of science, have been repeatedly recognized. In 1854 Dr. Lawes was elected a Fellow of the Royal Society, and in 1867 the royal medal was awarded to him conjointly with Dr. Gilbert, by the council of the society. The gold medal of the Imperial Agricultural Society of Russia was awarded to Dr. Lawes, and last year the Emperor of Germany, by imperial decree, awarded the gold medal of merit for agriculture to Dr. Lawes and Dr. Gilbert jointly, "in recognition of their services for the development of scientific and practical agriculture." The above extracts, taken at random from Prof. Miles' interesting paper, will serve to show how deeply indebted are all interested in agriculture to these two men, who have spent the greater part of a life time in a work that has been unrewarded except by the applause they have gained from those who appreciate it at something like its true value.

Two very fine Shorthorn bull calves are offered for sale in our advertising columns. They are not only good individually, but of high breeding. Particulars can be learned by applying at this office, or to Mr. William Johnson of Northville, this county.

TOPPING CORN.

In a recent number of the FARMER a correspondent wished to know whether corn could be topped earlier than it could be cut at the root. He also stated that it was too late to practice any suggestions that might be offered, but that it could be remembered. This naturally suggests the farmer's scrap book, which seems more of a necessity to him than to a person in any other occupation, for much that is valuable comes to his knowledge from the practice of others after the opportunity has passed for applying it. A year must often elapse before the season again comes around, and in that time the memory has let slip the details, if not the whole subject, and the valuable suggestion is lost, or so dimly remembered as to be impractical.

In this article I propose to go over the whole ground of topping corn, giving my method, with some reasons why, etc. I start with the proposition that corn cannot be topped sooner than it can be cut at the root. The unthinking will reason that the juices from the earth will reach the ear and mature it even when the top is cut off, but the laws which govern the circulation of sap in plants prevent such a completing process. This process of circulation is similar to the circulation of blood in animals. The blood comes from the extremities in one set of vessels to the heart and thence to the lungs to become purified, and then back to the extremities in another set of tubes, and this backward flow is what builds up the tissues and sustains life; so in plants, the watery sap ascends along the inner portions of the stalk stem, carrying with it the soluble food which is necessary to build up the structure and goes directly to the leaves to become purified, and then back to the extremities in another set of tubes, and this backward flow is what builds up the tissues and sustains life; so in plants, the watery sap ascends along the inner portions of the stalk stem, carrying with it the soluble food which is necessary to build up the structure and goes directly to the leaves to become purified, and then back to the extremities in another set of tubes, and this backward flow is what builds up the tissues and sustains life; so in plants, the watery sap ascends along the inner portions of the stalk stem, carrying with it the soluble food which is necessary to build up the structure and goes directly to the leaves to become purified, and then back to the extremities in another set of tubes, and this backward flow is what builds up the tissues and sustains life; 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The Farm.

Poison Cheese.

Readers of the FARMER will recollect the excitement caused by the wholesale poisoning of persons resulting from the eating of cheese made by a cheese factory in Lenawee County. Prof. L. B. Arnold, in the N. Y. Tribune, says such instances are not rare, and gives the following information on the subject:

Since the introduction of the factory system of cheese making poison cheese, in a mild form, has been very common. It is only occasionally that a case occurs which is strong enough to attract attention and stir up investigation. When the poison is intense the symptoms are: Severe vomiting and purging accompanied with intense pain and cramping in the stomach and bowels. These symptoms vary all the way from such severity down to a feeling of heaviness and a dull pain in the stomach common to indigestion, according as the poison is strongly or feebly developed in the cheese. An invariable accompaniment of the use of such cheese is a peculiar offensive breath. This never fails to appear, even when the poison is too feeble to produce distress or nausea. The fetid breath betrays the presence of the poison when it is so mild as to be manifested in no other way. The symptoms are uniform for the same degree of poison and are marked as those which indicate measles or smallpox. There is always a peculiar odor about such cheese, especially when the poison is well developed. It has a peculiar sour smell; not like the smell of lactic acid, but a strong and rather disagreeable sour. The striking uniformity in these respects lead to the inference that there is one cause for all such cases.

I have for a long time given a most watchful attention to the subject of poison cheese, and in doing so have noted some other striking facts about it which are interesting and indicative of the nature of the cause. In the first place chemical analyses, though made by able professors, and microscopic investigations have uniformly failed to give any clew to the cause. Second, there is a particular stage in the maturity or curing of the cheese at which the poison occurs and is the most virulent. It is not manifested in the milk before the cheese is made, nor in the curd or whey during the process of manufacture, nor in the early or later stages of curing when from the decomposition of casein, ammonia enough is set free to neutralize all the free acids and give the cheese an alkaline instead of an acid reaction. I have always found it in the middle stages of curing—from 30 days to six months old. Cheese, however, may be poison at all stages of its existence when it is made so from poisonous food eaten by the cows giving the milk of which it is made. When cheese is poisoned from this cause the poison runs all the way through the cheese not only, but through the curd and whey, and if butter is made from such milk the butter and the buttermilk will both be poison.

Cases of the latter kind every now and then occur from cows eating poison ivy, cicuta, poison hemlock, wild carrot tops, and other poisonous plants. But in all that class of cases previously referred to nothing of the kind occurs at any time except in a certain stage of curing, and it is not even then a permanently established poison. If a cheese in which it exists is cut and the surfaces kept exposed to the air and moist, the poison will begin at once to grow less and less virulent, till it disappears. It often happens also, that cheese which will occasion great distress to children and invalids, can be used by strong adults without any marked effects. Such results would hardly be expected to occur from any introduced poison, whether vegetable or mineral. Nor does it appear in all kinds of cheese alike. I have never met with a single instance in any variety of cheese in which the action of rennet in curing was not interfered with and modified by the influence of fermented whey in some part of the manufacturing process, either in the preparation of rennet, or by putting it into the milk before coagulation, or by souring the whey while the curd was lying in it. Cases occur most frequently where sour and stale whey are freely used in the preparation of rennet.

From all these observations taken together I am led to the inference that this kind of poison in cheese is developed by an unusual state of fermentation, similar to that which develops poison in canned meat, which is so badly put up as to allow of its souring and decaying, and occasionally in stale headcheese and Bologna sausages, in which fermentation and putrefaction seem to join in producing the virus. There is reason for supposing that the poison is a new fatty product from some modification in the process of curing, and is not very different from the one that gives the legitimate flavor to cheese. The flavoring matter in cheese is a volatile oil which may be driven off with heat, and which can be developed either from the volatile fats (butyric, etc.) or from the oleic in milk; or if the milk fats are all removed and lard substituted in their place, it can be developed from the oleic in the lard. That it is a fatty material is known from its behavior in analyzing cheese. In freezing cheese from fat with ether, the cheese flavor goes with the fat, appears oily, and behaves like the rest of the fat in the cheese. It is a new product, because it was not in the milk nor in the curd before curing. This newly developed oil, which gives to most people a wholesome and delightful relish, is as disagreeable and poisonous to about one in a thousand as the poison under consideration is to the remaining 999. It is well known that the flavor is changed materially by variations in the manufacture and curing by which the cheese gets "off."

It is therefore easily possible that the variations may be such as to make the product poisonous to the 999, instead of one in a thousand. That this is really what takes place is corroborated by the fact that in the analysis of poison cheese an offensive product is separated from the fats, which, from Voelcker's description,

corresponds to the sour and strong odor peculiar to poison cheese. Thus the circumstances all point to the production, by the combined influence of fermentation and putrefaction, of a fatty substance out of the fats in the cheese, which takes on a poisonous instead of the healthy character which the usual changes in those fats produce. The remedy against such occurrences lies in steering as clear as possible of the causes of unusual fermentation. Prepare rennet with water instead of stale whey. Put no sour whey into the milk before curding; draw the whey from the curd before it sours, and ripen the curd in the vat or sink, and well drained of whey. Keep everything sweet and clean, and the process of curing uniform and free from interruptions by cold or undue hastening by heat, and poison cheese will not occur.

Weed Seeds.

The eleventh bulletin of the New York Agricultural Experiment Station contains some figures relative to the prolificacy of some of our ordinary weeds; which figures go to show very plainly where the "weed seeds" come from. If seed were sold by the farmers brings forth an hundred fold it is evident that the power of reproduction is by no means lessened in the case of noxious plants, and that there is no mystery as to their origin. We quote:

"On September 28th one vigorous Parsley plant (*Portulaca oleracea*) contained 9 branches, the average branch 15 branches, the average branchlet 213 seed capsules, of 75 seeds, thus making for an estimate a grand total of 2,146,500 seeds.

"June 21st, an average plant of Shepherd's Purse (*Capsella bursa-pastoris*) contained about 1,000 pods, each at least 20 seeds, and more bloom to come. A better specimen showed 2,200 pods and still blooming; a vigorous specimen had 4,400 pods at least, and still blooming. The number of seeds to a plant may be estimated at from 20,000 to 90,000. A fair sample of Mallow (*Malva rotundifolia*) had 1,100 blossoms and more to come, each bloom producing 15 seeds; the estimate for plant season,"

"A fair sample of Chick-weed (*Stellaria media*) showed 128 flowers and capsules, each of which produces from 7 to 10 seeds. A better plant showed 471 capsules, and many had opened and fallen. This plant flowers during a very long season, and the number of seeds upon the plant at one time may be safely estimated at from 1,000 to 4,000.

"A fair, rather smallish plant of Black mustard, (*Sinapis nigra*) had about 120 blossoms and pods. One pod had fifteen seeds; the estimate therefore 1800 seeds to the plant.

"It does not require very vigorous dandelion (*Taraxacum dens-leonis*) to throw up 10 to 20 blooms in a season, yet each head may contain 120 seeds or more, or from 1,000 to 2,000 to the plant.

"A sample of Curled Dock (*Rumex crispus*), has 9 stems; one stem selected as an average one, had 21 flower spikes, one average spike counted 369 blooms. A single stem had, therefore, about 7750 blooms, and the nine stems about 60,000 blooms. A larger plant in the garden had 10 stems, the largest stem had 41 seed spikes, and smallest 20 seed spikes, the largest spike had 630 whorls, the smallest 21 whorls. The computed number of seeds is therefore at least 93,390.

"On July 1st a vigorous plant of Corn Cockle (*Lychis githago*), had 60 pods and blossoms; 2 seed pods had 49 and 62 seeds respectively; the total number of seed may therefore be computed at 3,800.

"On June 25th an average flower of the Ox-eye Daisy (*Leucanthemum vulgare*) contained 802 and another flower 550 achenes to the flower. One plant had 72 and another plant had 120 blooms. While often there is but one stem to a seed, yet frequently there are more, up to even 28. One stem may have 13 blooms. The number of seeds to a plant may therefore be computed at from 8,000 to 96,000 seeds.

"On July 6th a fair stool of Chess or Cheat (*Bromus secalinus*) had 211 heads, and an average head had eighteen seeds; the estimated number of seeds 3,798.

"A fair sample of corn Chamomile (*Antennaria arvensis*) had 151 seeds to a flower, and 48 flowers to a stalk. This plant has from 1 to 10 stalks. The seeds can, therefore, be computed at from 7,00 to 70,000 to a plant.

"On July 12th a vigorous plantain, (*Plantago major*), had 8 flower spikes, and one of these not the largest, had 561 blooms.

"On August 20th an averaged-sized plant of pig-weed, (*Chenopodium album*) had 28 branches averaging 21 branchlets. One average branch bore 13 flower spikes. One average spike contained 108 seeds. The computation for the plant is, therefore, 825,553."

Feeding Cottonseed Meal.

As agricultural authorities are advocating the use of cottonseed meal as feed for cattle, and it is likely to come more or less into use in our State, the following caution in regard to its use, from a contributor to the *Country Gentleman* who claims to have had six years' experience with it, will be valuable:

"After several years' feeding, I have found one quart of cottonseed meal—free from husk—one quart of corn meal, and one of bran, to make the best and safest feed ration, given twice daily, for a cow in full milk. The husk of cottonseed is indigestible, and will make trouble sure if fed to a cow. When I say bran, I mean either rye or wheat, but I like rye best. The effect of cottonseed meal on the butter is to harden it, to give it a good texture, and a fine, nutty flavor. Linseed meal has quite the opposite effect, and palm-nut meal will make the butter soft, and greasy too, although it largely increases the butter. But it is necessary to watch a cow closely when feeding cottonseed, and never to give any of it within two months before calving, or within ten days afterwards, and then begin gradually. Two ounces a day is quite enough for a calf under six months old, and indeed I have never yet found it of any advantage to a calf, while it has some for corn and oats and bran; I avoid using it for any animal except cows, or for fattening a beef animal. With good weather,

"The English feeders give as much as 12 pounds a day of cottonseed meal to their hens, but as this is fed with turnips and the combined influence of fermentation and putrefaction, of a fatty substance out of the fats in the cheese, which takes on a poisonous instead of the healthy character which the usual changes in those fats produce. The remedy against such occurrences lies in steering as clear as possible of the causes of unusual fermentation. Prepare rennet with water instead of stale whey. Put no sour whey into the milk before curding; draw the whey from the curd before it sours, and ripen the curd in a common farm mill, or in a country mill where corn in the ear is ground. It costs at the mills \$20 a ton, and retails at the north at about \$30, bags included. It is somewhat surprising that in view of the great interest existing in regard to this feeding stuff, we do not see it more prominently mentioned, but it may be perhaps because nine tons out of every ten made in this country are shipped to England, where it is very popular for feeding to fattening cattle, and making 'baby beef' and mutton.

"I have not learned all this without paying dearly for my experience, as I very early lost a very valuable thoroughbred cow by an attack of garget from feeding cottonseed meal in a forcing experiment, and no more than four quarts was used in the day at two feeds. The effect was to cause the udder to become hard and the milk to cease, and when this trouble was removed by a long course of treatment, the udder gave only blood. Since then, I have had occasional trouble from the stupidity of hired men who, knowing it was rich food, supposed four quarts would be twice as good as two, and so enlarged the quantity, or fed it to pigs, and killed them very quickly. Finally I mixed one ton of meal (34 bushels of corn ground), and a ton of bran, or wheat sharps, as I could get it the most conveniently, and a ton of cottonseed meal, very thoroughly on a floor, and then put it into the bin, and since then have had no trouble. Three quarts of the mixture is the regular feed when the cows are in full milk in the winter, which is my dairy season."

"A letter from a Pennsylvania farmer was read, in which he advised: 'Save the buckwheat chaff and use it as an absorbent in the cow-stall. Being fine and dry it makes one of the best absorbents for this purpose. I find a corn basket full (14 bushels) will absorb all the urine from ten cows over night and keep them dry and clean. I have made a practice of saving all of my own and buying of my neighbors for \$1.00 per load of 50 baskets, and I think it pays well.'

some time in October, I had flails ready, men engaged, all preparation complete, then in the morning after the surface of the ground was dried I had the bunches carefully lifted and set in new places loosely on the stubble. That allowed free circulation of air from bottom to top, so in a short time the bunches will get very dry. This stage reached, drawing began, and the flails were kept in motion until at the approach of night dampness gathered in the bunches, when work was suspended to be renewed in like manner the next day if suitable weather followed. I can not say for a certainty how much grain three flails may beat out in a short day, but it is evident that the power of reduplication is not less than a hundred bushels provided the crop is well filled. Threshing in this way insures the cleanest and best product in suitable condition for storing, which is a very important matter. Buckwheat threshed in this way is in good order for grinding and will give the best product. Damp bunches, if they happen to appear, as they surely will when struck by the flails, are thrown aside, but when the work is done by a machine they go through and dampness is communicated to other grain, so diminishing the yield of flour and impairing quality as well."

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Agricultural Items.

RECENT statistics say that England has 2,250,000 fewer sheep than in 1880 and a quarter million less than last year—principally the effect of poor feed consequent on almost constant wet weather for several successive seasons.

HARNESS should never be kept in stables which are not kept entirely free of manure. The ammonia thus produced is rapidly absorbed by the leather, and the result is said to be the same as if it was saturated with strong lye. It has the effect of rotting the leather and harness thus exposed, and will consequently remain sound a comparatively brief time.

BEFORE the cold weather of November and December comes, all animals will fatten rapidly; therefore they should be well fed now, and when properly fattened let the butcher have them. Such stock as is to be wintered should be got into good condition before winter sets in, if it is not so already, and the labor of wintering will be found to be much easier.

A FARMER who has used a wagon with broad tires on wheels long enough to ascertain their relative value compared with narrow tires writes: "A four inch tire will carry two tons over soft ground with greater ease to the team than a two-and-a-half inch tire will carry one ton. The wheels are not so much strained by stones and rough tracks on the road, and the road is not cut up, but, on the contrary, is packed down and keeps smooth. The prevalent idea that the draught is increased by widening the tire is altogether baseless; on the contrary, a wide tire reduces the draught. The extra cost of the tire is repaid many times over every year in the extra work that can be done by a team."

The serviceable Velveteen so long in favor with English ladies, has been little used here, because of the poor qualities hitherto offered. The newly imported Nonpareil Velveteen, however, with a close pile and fine texture, is scarcely distinguishable when made up, from Lyons Velvet. It may be had in dark rich shades of sapphire-blue, garnet, bottle green, olive, seal brown, and black, suitable for street costumes or for house dress. It is more effective when combined with Satan or Moire, but the taste of the season is for such costumes entirely of the Velvet and with very little trimming."—*Harper's Bazaar.*

We have received direct from the manufacturers in Europe an elegant line of the above very desirable goods.

Samples sent on application.

though there are still many breeders who over feed their birds, and then wonder why they do not lay well or keep healthy. All good things when used or carried to excess become injurious and decidedly objectionable, and even the best of grain and other food is no exception to this positive rule. Over feeding causes many ailments which are difficult to overcome, while it causes an undue secretion of fat on the ovaries of the laying hens, thus entirely veiling the egg supply. Leg weakness, breaking down and other troubles arise principally from over feeding, while over fed fowls are much more liable to disease and disorders than are birds fed properly; and when the over fed birds are attacked, they seldom, if ever, recover.

It is absolutely necessary that you should see that your poultry house is dry, the yards well drained and no stagnant water allowed on the premises. If you attempt to keep chickens in damp, dark, ill-ventilated houses, and low wet swampy runs, disease will follow surely. When cholera is around among the neighbor's fowls use some disinfectants. A cheap and good digesting fluid may be made by dissolving three pounds of copperas in five gallons of water, and adding half a pint of crude carbolic acid. If the acid cannot be had conveniently, use the copperas with it, sprinkle the floor, nests, walls and perches, or use a solution of sulphuric acid, say thirty of acid to one thousand of water, and applied in the same way, or better if washed by means of a broom or brush. It is almost useless to dose fowls with medicine while they remain where the infectious poison still lurks, and unless you adopt sanitary measures recommended. And if you attend to the sanitary business in time, you will have but little need to dose your fowls with powerful drugs.

KIDNEY-WORT
IS A SURE CURE
for all diseases of the Kidneys and LIVER.
It has specific action on the most important organs, enabling it to throw off toxicity and inaction, stimulating the healthy secretion of the bile, and keeping the bowels in free condition, effecting its regular discharge. **Malaria.** If you are troubled with malaria, take a tea of Kidney-wort, 1 oz., and drink it every day. **Worms.** Take a tea of Kidney-wort, 1 oz., and drink it every day. **Scrofula.** Take a tea of Kidney-wort, 1 oz., and drink it every day. **Arrears.** Take a tea of Kidney-wort, 1 oz., and drink it every day.

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NASAL or Bronchial CURE
No Pay asked till cured.
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MICHIGAN FARMER

—AND—
State Journal of Agriculture.A Weekly Newspaper devoted to the industrial
and producing interests of Michigan.

JOHNSTONE & GIBBONS, Publishers.

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The Michigan Farmer

—AND—
State Journal of Agriculture.

DETROIT, TUESDAY, OCT. 24, 1882.

Mr. P. W. RYAN is the authorized sub-
scription agent of the MICHIGAN FARMER,
and parties can pay money to him at our
risk.

WHEAT.

The receipts of wheat in this market the past week have been 364,450 bu, while the shipments were 296,832 bu. The visible supply of this grain on Oct. 14 was 14,488,914 bu, against 20,586,272 bu, at the corresponding date in 1881. This shows an increase over the amount in sight the previous week of 342,695 bu. The exports for Europe for the week were 1,074,020 bu., against 2,499,207 bu. by the previous week, and for the past eight weeks 24,763,730 bu., against 14,218,493 bu. for the corresponding eight weeks in 1881. The stocks in this city on Saturday amounted to 256,090 bu., against 209,385 last week, and 824,312 bu. at the corresponding date in 1881.

The market has not fluctuated much during the week, and there has been rather a small movement in this grain. So far, while receipts have been quite liberal, there has been no accumulation of stock in this market, and spot wheat is apparently strong at the present range of values. For No. 1 white 99¢ is the ruling price at the close, 92¢ for No. 2 do., 83¢ for No. 3 white. Red wheat has been in fair inquiry, and prices are slightly higher than a week ago, No. 2 being quoted at \$1.01, and No. 3 at 96¢ per bu.

Yesterday the market was dull, and values all show a decline, especially on No. 2 and 3 white. Rejected, however, showed a sharp advance.

The following table exhibits the daily closing prices of wheat from October 2 to October 23rd:

No. 1	No. 2	No. 3	No. 2	No. 3	red.
Oct. 2, 1882	1.00	99¢	98¢	93¢	5
3, 1.00	98¢	98¢	93¢	93¢	5
4, 1.00	98¢	98¢	93¢	93¢	5
5, 1.00	98¢	98¢	93¢	93¢	5
6, 1.00	98¢	98¢	93¢	93¢	5
7, 1.00	98¢	98¢	93¢	93¢	5
8, 1.00	98¢	98¢	93¢	93¢	5
9, 1.00	98¢	98¢	93¢	93¢	5
10, 1.00	98¢	98¢	93¢	93¢	5
11, 1.00	98¢	98¢	93¢	93¢	5
12, 1.00	98¢	98¢	93¢	93¢	5
13, 1.00	98¢	98¢	93¢	93¢	5
14, 1.00	98¢	98¢	93¢	93¢	5
15, 1.00	98¢	98¢	93¢	93¢	5
16, 1.00	98¢	98¢	93¢	93¢	5
17, 1.00	98¢	98¢	93¢	93¢	5
18, 1.00	98¢	98¢	93¢	93¢	5
19, 1.00	98¢	98¢	93¢	93¢	5
20, 1.00	98¢	98¢	93¢	93¢	5
21, 1.00	98¢	98¢	93¢	93¢	5
22, 1.00	98¢	98¢	93¢	93¢	5
23, 1.00	98¢	98¢	93¢	93¢	5

In futures there has also been a slight decline, but less in spot wheat. The amount of trading in futures in this market from September 2 to October 21, foots up 14,475,000, against 16,712,000 during the same time last year. This will serve to show how largely option trading enters into the business of the Board of Trade, when it is considered that nearly one-half of the entire crop of the State has nominally changed hands in eight weeks, and that if this ratio is kept up about 100,000,000 bushels will be sold during the year,—three times as much as is grown in the entire State. As there is a certain amount made on either the buying or selling of each parcel by the parties to the trade, just so much is added to the price of the grain to the consumer, while the producer derives no benefit from the increased price the consumer has to pay. It is therefore the best policy for dealers to keep prices fluctuating, as it is on the ups and downs that they make their money. This is why it is unsafe to depend upon the market remaining steady, no matter how low or high it may be. Futures show that dealers are not expecting any decline in prices from those now ruling, and that any change will probably be in the direction of higher values.

The following table shows the closing prices of the various deals for the past week:

Oct. Nov.	Dec.	Jan.	Feb.
Tuesday.....1.00	99¢	98¢	1.00¢
Wednesday.....2.00	1.99	1.98	2.00
Thursday.....1.99	1.98	1.97	2.00
Friday.....1.00	99¢	98¢	1.00
Saturday.....0.99	98¢	97¢	1.00
Monday.....0.99	98¢	97¢	1.00

The foreign markets have shown more strength the past week, it being generally understood that the wants of Europe and Great Britain have been underestimated, and that neither holders nor growers are willing to part with stocks at the present range of prices. The British and French country markets are all firm, and the tendency is upward.

The following table gives the prices ruling at Liverpool on Saturday as compared with those of one week previous:

Oct. 14.	Oct. 21.
Wheat, extra State.....1.00	1.00
Wheat, No. 1 white.....1.00	1.00
Wheat, No. 2 white.....1.00	1.00
Wheat, No. 3 white.....1.00	1.00
Barley, extra State.....1.00	1.00
Barley, No. 1 white.....1.00	1.00
Barley, No. 2 white.....1.00	1.00
Barley, No. 3 white.....1.00	1.00
Flaxseed.....1.00	1.00
Linseed.....1.00	1.00
Linseed, No. 1.....1.00	1.00
Linseed, No. 2.....1.00	1.00
Linseed, No. 3.....1.00	1.00
Linseed, No. 4.....1.00	1.00
Linseed, No. 5.....1.00	1.00
Linseed, No. 6.....1.00	1.00
Linseed, No. 7.....1.00	1.00
Linseed, No. 8.....1.00	1.00
Linseed, No. 9.....1.00	1.00
Linseed, No. 10.....1.00	1.00
Linseed, No. 11.....1.00	1.00
Linseed, No. 12.....1.00	1.00
Linseed, No. 13.....1.00	1.00
Linseed, No. 14.....1.00	1.00
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Linseed, No. 23.....1.00	1.00
Linseed, No. 24.....1.00	1.00
Linseed, No. 25.....1.00	1.00
Linseed, No. 26.....1.00	1.00
Linseed, No. 27.....1.00	1.00
Linseed, No. 28.....1.00	1.00
Linseed, No. 29.....1.00	1.00
Linseed, No. 30.....1.00	1.00
Linseed, No. 31.....1.00	1.00
Linseed, No. 32.....1.00	1.00
Linseed, No. 33.....1.00	1.00
Linseed, No. 34.....1.00	1.00
Linseed, No. 35.....1.00	1.00
Linseed, No. 36.....1.00	1.00
Linseed, No. 37.....1.00	1.00
Linseed, No. 38.....1.00	1.00
Linseed, No. 39.....1.00	1.00
Linseed, No. 40.....1.00	1.00
Linseed, No. 41.....1.00	1.00
Linseed, No. 42.....1.00	1.00
Linseed, No. 43.....1.00	1.00
Linseed, No. 44.....1.00	1.00
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Linseed, No. 46.....1.00	1.00
Linseed, No. 47.....1.00	1.00
Linseed, No. 48.....1.00	1.00
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Linseed, No. 95.....1.00	1.00
Linseed, No. 96.....1.00	1.00
Linseed, No. 97.....1.00	1.00
Linseed, No. 98.....1.00	1.00
Linseed, No. 99.....1.00	1.00
Linseed, No. 100.....1.00	1.00
Linseed, No. 101.....1.00	1.00
Linseed, No. 102.....1.00	1.00
Linseed, No. 103.....1.00	1.00
Linseed, No. 104.....1.00	1.00
Linseed, No. 105.....1.00	1.00
Linseed, No. 106.....1.00	1.00
Linseed, No. 107.....1.00	1.00

Poetry.

THE FATE OF A FAST YOUNG MAN.

The following verses were written by a young man confined in the Illinois State Prison, and the same sad story is told by hundreds of young men whose down fall is traceable to the evil practices described below:

"It's curious, isn't it Billy,

The change twelve months may bring;

Last year I was in Saratoga,

As happy and rich as a king;

I was raking in pools on the races,

And feeding the waiters with "Ten,"

And sipping mint juleps by twilight,

And to the pen."

"What led me to it?" What always

Leads men to destruction and crime?

The prodigal son, whom you read of,

Has altered somewhat in his time,

He spends his substance as freely

As the Biblical fellow of old;

But when it is gone he fancies,

The hawks will turn to gold.

Champagne, a box at the opera,

High step while the fortune is fresh,

The passionate kiss of women

Whose cheeks have forgotten to blush.

The old, old story, Billy,

Of pleasure's heat in tears,

The froth that foams for hours.

The drugs that are tested for years.

Last night as I sat here and pondered

On the end of my evil ways,

There arose like a phantom before me

The vision of boyhood's days.

I thought of my old home, Billy,

The schoolhouse that stood on the hill,

The brook that flowed thro' the meadow,

I can't hear its music still.

Again I thought of my mother,

Of the mother who taught me to pray;

whose love was a precious treasure

That I heedlessly cast away,

I saw again in my visions

The fresh-lipped, careless boy,

To whom the future was boundless,

And the world but a mighty toy.

I thought of all this as I sat here,

Of my ruined and wasted life;

And the pangs of remorse were bitter,

They pierce my heart like a knife.

It takes some courage, Billy,

To laugh in the face of fate,

When the yearning ambitions of manhood

Are blasted at twenty-eight.

Miscellaneous.

CLOSE SHAVE FOR A WIFE.

A winding country road, shut in by flower-flecked hedges from fields of waving corn, arched over by a vault of deepest blue. The lark, a dun and wavering speck in the upper air, shook out incessant trills of melody, and the brook warbled a tuneful answer to his wordless song. The scene, lovely in itself, had gained, at the moment we beheld it, the completing touch which artists call "a human interest," without which few scenes are worth a painter's while to copy, a story-teller's while to write about. Round a corner of the lane came two figures—a well-set up, handsome youth of five-and-twenty, and a girl of seventeen or so. The girl, as became the heroine of a love-story, was pretty, and borrowed an additional charm from the chastened smile of humor which lurked in the eyes which shot an occasional glance at her companion, who seemed perturbed in spirit, and plucked at his moustache with a nervous hand.

"I thought you had something to say," said the lady, demurely.

"So I have," answered the young man, "I'm going away."

"For long?"

"I don't know, yet. It may be only a day or two, it may be a month, or even more."

The smile faded from the girl's eyes, and left them grave, and her lips quivered a little. By some keen feminine instinct, incomprehensible to us of the other sex, she knew that her companion's glance was turned on her, although her own had dropped to the dusty road.

"It's too bad, Mr. Eytom," she said petulantly. "When you had promised for the 24th, and the rehearsals were going on so nicely! It will spoil everything."

"You don't suppose I want to go?" asked the young man.

"You are going," said the girl. "It's too bad. Who is to play the Marquis if you aren't back in time?"

The young man's face, which had brightened a little, clouded again.

"I got a letter this morning from West, my uncle's lawyer." He took the letter from his pocket as he spoke, but restored it again unopened. "My uncle is very ill; so ill, West says, that he can't last much longer; so ill that he could not write himself. He wants me to go and see him."

"I am very sorry," said the girl. "Of course you must go."

"Yes," he answered. "I must go."

"It was very thoughtful of you to remember the theatricals at all, at such a time, and to give me warning. Try Tom Courtenay," he suggested, "so I asked Nelly this afternoon."

"Uncertainty, indeed!" said Mrs. Tresham. "As if there was any uncertainty! But young men are stupid, nowadays. I was so—cross about it. It must be very sad to lose any one you love."

"I'm afraid I am not so sorry for that as I ought to be," answered the young fellow. "West says—" he made a motion of his hand towards his pocket but withdrew it again. "West says that the will is in my favor. You see—"

He stopped short, at the sudden look of painless amazement on the girl's face.

"No, I didn't mean that!" he broke out. "Nelly, don't go away. Stay! You can't think me such a dad as to be glad of a man's death because it brings me money? Hang the money! Can't you guess why I'm glad?"

The girl's eyes dropped again, and she stood trembling. Mr. Eytom bit his lips with vexation, and made two distinct attempts to speak, with no comprehensible result. The girl was the first to recover herself.

"Will you kindly explain?" she asked, a trifle icily, though her cheeks were

burning, and her eyes less steady than she wished to make them.

"I don't know where to begin," said the young man.

"Begin," responded the young lady lucidly, "at the beginning."

"I will," he said with an aspect of desperate determination. "I love you. I should never have had the cheek to tell you so if I hadn't got this letter. But now I can offer you such a life as you have a right to expect. I couldn't go away in uncertainty. I have really been trying to feel sorry for poor old uncle all day, and I couldn't think of anything but you. I've thought of nothing else for ages, since I met you first. It's ungrateful, perhaps—in fact I'm sure it is—but I can't help feeling glad that I have the right to speak."

The girl's illness melted before this sudden warmth, and face and neck and ears were rosy red.

"If you say 'Yes,' I shall be sorry," said the young man.

There is a certain school of philosophers which declare that the female sex is void of humor. If that doctrine be true of women in general, Miss Helen Boswell must be taken as an exception.

"Then I think I had better say 'No!'" she said in answer to the young man's remarkable declaration.

Young men in love are notoriously stupid, but even Mr. Eytom, who was as much in love as any young man could be, penetrated the meaning of this utterance.

"Say 'Yes,'" he answered, boldly possessing himself of her passive hand. She made a feeble motion to withdraw it, whereat he passed his arm about her waist and took the other. She raised her eyes in one swift glance at his face, and dropped them again. The pressure of the arm about her tightened, as he renewed his bidding, and her lips moved "Yes," although no sound was audible, even to her lover's ears. Whereat, his boldness overran all restraint, and, overcoming the slightest possible resistance, he drew the lips to his, and kissed them.

It was in a mild and not altogether unagreeable spirit of sadness that George Eytom took his seat at his favorite table. His visits to the old place were numbered, and many pleasant memories were enshrined within its walls. Already dowered with the affection of the old club waiter, the dinner he ordered on this occasion was such as to deepen the tender interest felt by that venerable servitor in his young client, and past and future looked doubly fair, viewed through the medium of a bottle of choice Burgundy. Presently entered to him Mr. Thomas Courtenay, a brother-Owl, to whom a casual and sarcastic reference had been made on that eventful afternoon, a month ago. Mr. Courtenay aspire to be a journalist. He was a young man of considerable talent, but of an erratic temperament, which somewhat militated against his success.

"Hello, Eytom, where have you been hiding for the month past?"

"I have been to Shropshire, attending on my uncle."

"Peace to his manes," said Mr. Courtenay, and took a gulp from a soda water glass, filled with a liquor of a faint golden tinge. "I, alas! am uncleless. By the way," he continued—"I suppose I may ask—I hear that you are engaged to Miss Boswell. Is that so?"

"I am, provisionally. I am to see the General to-morrow."

"Success attend you! Fear nothing from me. I retire."

"That's very good of you," said Eytom gravely.

"Not at all," responded Mr. Courtenay with equal gravity. "Don't mention it. And I wish you the best of luck with the General, my boy, and all happiness."

"Thank you," answered George, cordially grasping the hand extended to him.

"What kind of man is the General?" asked Courtenay.

"I never met him. He has been in India for the last twelve years. Nelly—Miss Boswell—can only just remember him. Aunt Eliza says he's the best man she ever knew. I don't think you need be very much afraid of him."

"With such an ally," answered her lover, "I should not be afraid of a dozen generals."

"Do be quiet, George," said Nelly.

"There's Aunt Eliza on the lawn."

"Asleep, as usual," said George. "Let us wake her up, and ask for some tea. And then I must run away and catch the 4.20."

"Charming old lady, Mrs. Tresham!" said Courtenay.

"I am awake, young people," said Nelly.

"I haven't seen him for twelve years," answered Nelly. "I was only five when he took me on board the ship at Madras, and he's never been to England since. He was always very kind, and I cried awfully when I left him. And he writes me such nice letters, and sends me things by pretty nearly every ship that comes home. And Aunt Eliza says he's the best man she ever knew. I don't think you need be very much afraid of him."

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OCTOBER 24, 1882.

THE MICHIGAN FARMER

HER TOUR.

Yes, we're been traveling, my dear,
Three months, or such a matter,
And 'tis a blessing to get clear
Of all the clash and clatter.
Ahi! when I look the guide-book through,
And see each queer place in there,
'Tis hard to make it seem quite true
That I have been there.

Our voyage? Oh, of course 'twas gay—
Delightful, splendid! glorious!
We took the shore—we sped away—
We rode the waves victorious.
The first mate's mustache was so grand!

The ocean sweet, though stormy,
I was so sick I could not stand,
But husband saw it there.
At Queenstown we saw land once more—
Grown never looked so pretty!

We took a steam car near the shore
For some light sounding city.
A very ordinary town.
We had to kiss at Blarney;
The beggars wouldn't let us alone
That half day at Killarney.

The Giant's Causeway? 'Tis arranged
With no reward to science;
It must sometimes of late have changed—
At least we saw no plants.
Some little funny scrubbs of folks
Said pictures, and were merry;

The men were full of yarns and jokes,
The women barefoot, very.
Old Scotland? Yes, all in our power
We did there, to be thorough.
We stopped in Glasgow one whole hour.
Then straight to Edinburgh.
At Abbotsford we made a stay
Of half an hour precisely,
The route all along the way
Were ruined very nicely.

We did two mountaine in the rain,
And left the others undone,
Then took the "Flying Scotman" train,
And came by night to London.
Long tunnels somewhere on the line
Made sound and darkness deeper.
No English scenery is not fine,
Viewed from a Pullman sleeper.

Oh, Paris! Paris! Paris! 'tis
No wonder, dear, that you go
So far into the ecstasies
About that Victor Hugo!
He paints the city, high and low,
With faithful pen and ready—
I think, my dear, I ought to know,
We drove there two hours steady.

Through Switzerland by train, Yes I
Enjoyed it, in a measure;
But still the mountains are too high
To see with any pleasure.
Their tops—they made my neck just stiff,
Just stretching up to view them;
And folks are very foolish if
They clamber clear up to them!

Rome, Venice, Naples, and the Rhine?
We did them—do not doubt it;

This guide book here is very fine—
Twill tell ya all about it.

We saved up 'till next year,
If busines gets untravelled.

What going? Come again, and dear,
I will not seem so traveled.

—Will Carleton, in Harper's Magazine.

Left on the Field.

■Perhaps you know what it is to have a bullet plow its way into your flesh, but were you ever left wounded on the field—left to wear away hours of daylight amidst groans and prayers and curses—to wear away a night which seemed years long, while men shrieked in agony and died—while wounded horses sighed and groaned and dragged themselves along—while ghouls prowled over the blood-red grass and wet their fingers in warm blood as they searched the bodies of dead and wounded for plunder?

"Forward!" came the order.

I looked up and down the lines as

we left the cover of the woods, and the

regiment was dressed as if on parade.

We were the battle-front of a brigade,

and were going to charge a battery half

a mile away. No skirmishers out—no

firing. The battery was belching

away under a cloud of blue smoke, and

the ground was open and clear.

Tramp! tramp! tramp! No lagging

—no forging ahead. Common time—

march! march! It was a snail's pace

but we were to increase it. The left

of the line was swinging ahead a little

as the impatient men increased their

steps, when suddenly the enemy dis-

covered our manoeuvre. There was a

bull in the firing for fifteen seconds as

the battery charged front, and then a

shell tore through our center and shat-

tered six or eight men.

"Double quick—charge!" and away

we went, each man shutting his teeth

hard as he entered the smoke cloud

leaped forward to scorch and wither

downs and scores and hundreds.

A grim veteran at my left raised a

cheer. It was yet on his lips when a

grape-shot tore a hole through his

breast and sent him into a dry ditch,

dead before he struck the grass. Two

brothers on my right halted for an in-

stant as the grape and canister

whizzed around them. I looked back

and they were gone—dead under the

feet of the second line.

How far it was! How long it took

us to pass over that quarter of a mile!

Now we see shadows around the guns

—now the powder flame burns our

faces—now we are cheering and shout-

ing and using the bayonet. The guns

are ours! Men fall to the ground as

they step into pools of blood. Every

gun has its blood-stain—every wheel

is covered with crimson spots. Men

died before the guns—around them—

behind them. We cheer—hip! hip!

hu—!

Where am I? The afternoon sky is

overhead—the roar of battle is in my

sars—I am lying on my back on the

ground. What does it mean? Heavens!

What a burning, blistering, gnawing

sensation in my left leg above the

knee? I am wounded, and I am lying

where I first went down. The guns

were here, but they are gone now, part

of them captured, part of them

dragged away by hand. The tide of

battle has shifted, and over this mead-

ow the dogs of war are tearing at

each other's throats.

Is there any one else here? I lit

my head. Any one else? Great God!

the field is covered with dead and

wounded—with men writhing and

groaning—with fragments of bodies—with pale-faced dead—with blood-stained dying! I can touch the dead on either side, and close behind me a piteous voice calls out:

"Comrade, for the love of Heaven give me a drink."

That pain again! Is the leg being roasted over a slow fire? I scream and shriek, and clutch the grass, and keep company with thousands of others, who are being tortured to insensibility by pain, or driven to distraction by the still-continued carnage.

Ah! it is night. The falling dew has brought more than one poor soldier back to life and renewed suffering. The batteries are silent, the muskets are resting after their deadly work. There is silence—not from woods, and meadows, and knoll, and valley, from almost every yard of ground on that long battle-front, rise groans, and cries, and prayers, and pleadings. A general prides himself on a strategic movement, a colonel will be promoted for bravery, a major is flattered by the cheer of the living, a captain is proud that his men stood like a stone wall, and the result is 500 dead and wounded and mangled men—fathers, brothers and sons.

This is glory. Scream and shriek, but some one has won fame. Pray and plead and rave and curse, but the telegraph is flashing the news of a glorious victory over the country. The enemy has not retired as yet, but is getting ready to fall back when the night grows older.

Hark! Is some one moving? Yes, it is a step. Is it some wounded man hobbling away under cover of darkness? Nearer—nearer—and some one looks into my face. It is the ghoul of the battle-field—the hyena who drags his talons through blood and gaping wounds to rob dying men's pockets.

"Go away—I am not dead!" I shriek in his face as he bends closer, and he leaps aside to growl and swear and search the body of one whose pale, upturned face is just catching the silver rays of the new moon. I hear more steps. Ghoul meets ghoul and holds a whispered conversation, and they separate with hands full of plunder. Now comes a heavier step. A trooper's horse is dragging himself across the field, a shattered leg making him utter almost human groans. He is more merciful than the ghouls. He weaves and turns to avoid the bodies in his path—he even halts and puts his nose against the faces of the dead as he would speak to them.

So and so until midnight comes and goes, and then lanterns flash, the ghoul speed away, and friends carefully lift up the wounded and carry white faces as they find comrades stiff and stark in pools of clotted gore. And all this for what?

VARIETIES.

The green grocer is one who trusts the new family in the next block.

The difference between a belle and a burglar—The belle carries false locks and the burglar false keys.

"Procrastination is the thief of a good time," was the lament of the small boy who got up too late to take the excursion train.

What is the difference between an old maid who dyes and an autumn leaf? One fades and dies and the other dyes and fades—Batch.

"Adolphus, let us leave the avenue and stroll along the margin of the river." "Not any, dear, say Evangeline. No more margins for me."

When a man prefuses his conversation with "Now I know this isn't any of my business," you may be pretty sure that it isn't.

In a land of History.—They do say that the first question asked by a deacon visiting Egypt was: "Now, what were the real facts of the Potiphar scandal?"

"What are clouds?" asked the Popular Science Monthly. Well, one kind is when you call to see your girl and find that the other fellow is in the parlor with her.

A little three-year-old, after looking thoughtfully at the inside of a tea-caddy, said, "I think it's coaled to Newcastle."

Nothing scholars' newspaper as the impinging of useful information. "How shall I get out of the sugar bowl?" asks a correspondent. "Fill the sugar bowl with salt."

The following is told of a green son of the Emerald Isle. He was eating green corn from the cob for the first time. He handed the cob to the water and asked: "Will ye plow some more bane upon me sthich?"

"Say, Hans, I'll give I'd rather have a drink of whisky. I wish you'd give me some whisky for these crackers."

"Yah, I'll do dot," said Hans obligingly, and in a moment the crackers were returned to the barrel and a drink of whisky was placed in their stead on the table. The queer customer drank it off with evident satisfaction, and after lingering about a little started to go.

"Stop, mine friend!" exclaimed Hans "you hev not paid me for dot whisky!"

"The whisky? Why, didn't I give ye the crackers for the whisky?"

"Vell, den, you hev not paid me for dose crackers!" cried Hans, a little more excitedly.

"The crackers? Why, haven't you got the crackers?"

"Vell, I don't understand dot," said Hans, scratching his head perplexedly, "but seez you goot out; I don't vant any more of your custom!"

TWENTY men, mostly commercial travelers, met recently at the breakfast table of one of the hotels in Burlington, Iowa. A rather pompous-looking drummer sat at the head of the table. As the meal progressed a gentleman farther down the board, pointedly asked the green man at the other end to be kind enough to pass the bread. The person addressed very coolly took a slice between his thumb and finger and gave it a toss in the direction of the gentleman who had asked it. Such a breach of etiquette did not escape the notice of those present; but the bread was taken and nothing said. Soon the pompous man asked for the hash. "Will you please pass that hash this way?" said he. A dish containing some hot hash stood within easy reach of the man who had just caught his bread on the fly. Seeing his opportunity, and at the risk of burning his palm, he reached over, seized a handful of the savory hash, and by a well-directed throw, with all his force, landed the hash on his opponent's plate, from which it glanced in all directions, chiefly upon his broadcloth suit and white shirt front. The roar that went around the table was immense. After receiving the hash broadcast, Mr. Pomposo jumped up from the table, called to the proprietor, and said in indignant tones:

"Sir, I have been insulted at your table, and I want to pay my bill!"

The proprietor on finding out the true state of the case, told him at once he had better pay, and get out of the house as soon as he could, and left—

The King of Spain sent an ambassador to the Pope, a young man of high extraction, with a special mission. The Pope, inform-

that a special envoy of the King of Spain demanded an audience, imagined that he would receive an aged minister covered with stars, and venerable white hair, &c. Instead of which, in walked with light elastic steps, quite a young man. Haughty and irritable, the Pope looked at him, and at last said:

"Are all the old diplomats in Spain dead, that the King sends us a young boy without even a beard?" ("Um jeune homme imbélique," said the King.)

"Holy Father," said the indignant Spaniard, "if the King, my master, had thought that honor consists in a beard, he would have sent you a goat, and not a nobleman like myself."

That pain again! Is the leg being roasted over a slow fire? I scream and shriek, and clutch the grass, and keep company with thousands of others, who are being tortured to insensibility by pain, or driven to distraction by the still-continued carnage.

A boy paid his first visit to one of the public schools the other day as a scholar, and as he came home at night his mother inquired: "What school?" "Hurry, hurry, what school?" ("Hurry, hurry, what school?") he replied in an excited voice. "I saw four boys licked, one girl got her ear pulled, and a big scholar burned his elbow on the stove. I don't want to miss a day."

—

HAYESVILLE, OHIO, Feb. 11, 1880.

I am very glad to say I have tried Hop Biters,

and never took anything that did me as much good. I only took two bottles, and I

would not take \$100 for the good they did me. I recommend them to my patients, and get the best results from their use.

C. B. MERCER, M. D.

The Household.

A TALK WITH THE BOYS.

SOMETIMES the man who wants to be a wit has his weapon turned against himself. At a great dinner an eccentric clergyman saw a huge pile of dishes, and, drawing it in front of him, began the work of destruction. The ill-mannered company laughed, and one of them said with sneer:

"Dr. McC., you remind me of Nebuchadnezzar."

The old gentleman looked slyly out of the corner of his eye and replied:

<p

Veterinary Department

Conducted by Prof. Robert Jennings, late of Philadelphia, Pa., author of "The Horse and its Diseases," "Cattle and Sheep Diseases," etc. Professional advice through the columns of this journal to regular subscribers free. Particulars descriptive information will be given to those who send names and address to the office of the FARMER. No questions will be answered by mail unless accompanied by a fee of one dollar. In order to receive answers to your questions, they should be accurately described, how long standing, together with color and age of animal, and what treatment, may have been used. Private address, 201 West Street Detroit.

Irritation of the Air Passages in a Horse.

VICKSBURG, Oct. 10, '82.

Veterinary Editor of Michigan Farmer.

DEAR SIR.—I have a five year old brown horse that had what a good many call the pink eye; this summer his eyes seemed to swell up and run, and he ran at the nose a kind of water at first; seemed to act as if he was sore or stiff all over for about a week. I turned him out to grass and gave him a few drops of aconite three times a day, and he seemed to have got all over it, but I noticed he would run at the nose every few days, but thought nothing of it until about two weeks ago; he coughed as if he had the hives, and breathed very much like the hives, seemed to be worse at times; to drive him in the dust seems to make him cough and breathe harder. I have kept him dry feed through seed; for he had good timothy hay and oats, and gave him some alcohol with water and belladonna in it for his cough, thought it helped him a little. Now if you can tell from this description what this animal I would be very glad to have you tell me, through the FARMER, what to do for him; his weight is 1,300 pounds. W. S.

ANSWER.—We cannot diagnose the trouble with your horse as heaves; though that kind of respiration may temporarily exist. There is one very certain, that the seat of the disease is located in the air passages, which may be confined to some portion, or the entire mucous surface may be involved. When confined to the head a little chloride of potassa pulv, put upon the tongue three or four times a day is all the treatment necessary. If the larynx or upper part of the throat is involved, a fly blower will usually give relief. If the disease extends to the bronchial tubes, the assistance of a veterinary surgeon should be secured, as a mistake in the treatment often proves fatal. As the animal appears better or worse at times, it may be due to atmospheric influences. The nostrils if filled with dust, has a tendency to excite sneezing or coughing even in a healthy animal, but much more so where irritation of the membrane of the nose exists. In the absence of a veterinary surgeon we would advise you to try the following: Sulphate cupri, pulv, half an ounce; nitrate of potash pulv, gentian root pulv, of each two ounces; Jamaica ginger root, one ounce. Mix and divide into twelve powders; give one every night in feed; good wheat or oat straw should be given instead of hay. Report to us in two or three weeks your success or failure. For the last year all diseases of the air passages in the horse have been called pink eye, a misnomer.

What Allis the Pigs.

ALAMO, Oct. 16, '82.

Veterinary Editor Michigan Farmer.

DEAR SIR.—My hogs are sick, and so are those of my neighbor. They are affected about the same way. They won't eat; go lame in left hind foot, and walk cross-legged in the rest. Some die in 24 hours, others live six weeks and then die. Can you give a cure through your columns and oblige,

A SUBSCRIBER.

ROCHESTER, Oct. 16, '82.

Veterinary Editor Michigan Farmer.

DEAR SIR.—Being a subscriber to your paper I would like to know what is the cause of my pigs being lame. They are good growing order; one of them was down on his hind legs, and you would think to look at him that his leg was broken, and he will swing around with his fore parts and get up and then he walks like a lame back hog. I had four sick in one week, and it lasted about five days. I have had three litters from the same sow, and some of each lot have had the same lameness at about six months old. They are Poland-Chinas and Berkshire's.

One thing more, I have been to the fairs this fall, and have seen old boars with tusks three or four inches long, and they will cut a hog or critter stroke. I knew one to kill a sow at one stroke. Take such a chisel and put it round the upper jaw, draw them in so their front teeth just touch the ground and pray the mouth open with a stick, and twist the tusks off with a blacksmith's punches; begin at the end and it is quickly done, and they look the better for it. I never have one more than a year old that is not fixed. SUBSCRIBER.

ANSWER.—The two preceding letters, one dated Alamo, the other Rochester, Mich., both upon the same subject, are so indefinite that it is not in our power to diagnose the true character of the disease. Diseases of the hog, more than any other of our domestic animals, are usually very obscure, and much less understood by the veterinary profession; a fact due in part to the difficulty of handling and administering medicines when diseased. The hog too is more subject to parasitic diseases than are other of our domestic animals. The trouble is probably due to this cause. We would advise a careful post mortem examination by a human physician in the absence of a qualified veterinary surgeon, upon the carcass of a dead hog, and report to us the pathological condition and appearance of the diseased organs, as well as the condition of the lame foot or feet; so we may have something definite to aid us in diagnosing the true character of the disease. If subscribers in writing to us for advice would only consider the difficulties under which we labor, they would be more careful in observing and describing the symptoms present in each sick or lame animal.

Weak Back in a Horse.

HANCOCK, Minn. Oct. 10, '82.

Veterinary Editor Michigan Farmer.

DEAR SIR.—Can you give me some more advice through the columns of your excellent paper? I have a horse well out, with the build for a fine strong horse, but he always seemed a little weak in the kidney. Last spring after about six weeks' work he seemed quite used up. He seemed to pass his water with difficulty, and was sensitive over the kidneys. He

held his tail always lifted and canted to the right side. I think he passed water quite frequently. A few weeks' rest on grass seemed to bring him round, and he was all right this harvest, but about a month ago he gave out again, and has not been good for a full day's work since. At first he was very sore over the kidneys, but a good mustard poultice seemed to help that. Still he is not right. He passes his water usually without running out his yard and, if he is worked hard he will pass water very frequently and be thoroughly used up before night. There seems to be a chronic weakness somewhere. Can you suggest some treatment that shall remedy it and return him a dose of uva-ursa, catechu and opium once or twice a week. The horse is in good flesh and good health too, except when worked hard. Appetite is very good. Any advice will be gratefully received.

Yours truly,

W. G. W.

ANSWER.—The symptoms given as appearing in your horse are too indefinite to justify an attempt at diagnosing the trouble with your animal. That there is some derangement in the kidneys or spinal column, there is little doubt. But it appears to us there are complications, involving other important organs, which are not indicated by your description of the symptoms. You had better have the advice of a veterinary surgeon, if you can secure one in your neighborhood, otherwise we would advise the continuance of the uva-ursa, without the catechu or opium, as they are both powerful astrigents and calculated to do harm rather than good, in such cases. Or you may use two drahms of hydrochloric acid, in a pal of water night and morning instead of uva-ursa. If the kidneys are involved this may give relief, if not its tonic properties will do no harm; mustard applications to the joints are good. The animal should not be used for heavy work, until entire recovery takes place. Send us symptoms more clearly defined, and we will advise you what course of treatment to adopt.

* * * Middle measures are often but middling measures." There are no "middlings" about Kidney-Wort. It is the most thoroughly refined "flower" of medicine. It knows no half-way measures, but radically uproots all diseases of the kidneys, liver and bowels. It overthrows piles, abolishes constipation and treats the system so gently and soothingly as to prove its true kinship to nature in all its phases. It is prepared in both liquid and dry form.

CITY ITEMS.

DETROIT has got a 30 ton steam road roller from England, and two street sweeping machines.

LAST week a man gave his name as Samuel Wright, was arrested in this city for stealing a horse from M. A. Rowe, of Manchester, Mich.

The excursion of the members of the Merchants' and Manufacturers' Exchange to St. Louis, over the Wabash, was a decided success, so say the participants.

THE Women's Christian Temperance Union of Detroit, has raised \$1,000 by subscription for the purpose of giving a course of free temperance lectures at one of the Open Houses every Sunday afternoon.

THE libel suit of Hugh S. Peoples against the Post and Tribune for \$50,000 is now in progress in the Superior Court. The Evening News and the Volkstedt have each one pending for the same amount, and the result of the present case will have an important bearing on them.

THE State Supreme Court has affirmed the decision of the Recorder's Court in the case of the notorious Bob McKinney. It now remains to be seen whether he will get his just deserts. If Prosecuting Attorney Caplis will at once move for sentence on him, it will give the respectable portion of the community more confidence in him, and bring in quite a few wavering voters among his constituents.

THE Supreme Court has reversed the decision of the lower court in the case of Peter Henkel against the City of Detroit, for alleged damages to his property from farmers' wagons occupying the street on which his business is located. The city offered Henkel \$1,000 to settle the matter, but he refused. The City Attorney then took it to the Supreme Court, where the decision was reversed, and the cost of both courts assessed against Henkel. Marshal Clerk Poole takes considerable credit to himself in this case, as he is the one who proposed to fight it. The court held that as Henkel had purchased the property after the avenue had been set aside for market purposes, he could not recover damages sustained by reason of the occupancy of the adjoining streets by teams, as he knew, or should have known, of such occupancy when he purchased the property.

THE Rothschild Brothers, of this city, who are extensive dealers in leaf tobacco, and who it will be remembered got into difficulty with the government about some duties which they forgot to pay, have been trying to settle up the case against them with the officials at Washington. They employed a female, who waited on the Solicitor of the Treasury in their interest, and who on finding that he was determined to prosecute them, made use of some language that savored of blackmail, when the solicitor called an officer and had her removed. The government make a claim for \$3,000, and the Rothschilds offered \$1,000 in settlement, but after the female fiasco, they came up to \$1,100, evidently thinking she had spolt their case at least \$100. The Solicitor of the Treasury has notified the U. S. District Attorney here that he has no intention of settling the case on the terms offered, and that if it is possible, the case should be tried at the November term of the court in Detroit.

To Whom It May Concern.

ALBANY, N. Y., Oct. 20, 1882.

To the Editor of the Michigan Farmer.

I notice an advertisement in some papers by one Steely, claiming to have taken premiums over the Dederick Press at the New York State Fairs. That is perfectly false, since the New York State Agricultural Society has not offered any competitive premiums for many years on machinery of any kind. The essential features of his press have been stolen from my patents, and I have prosecuted him for infringement, though his ability to pay costs and judgment is extremely doubtful.

Yours,

P. K. DEDERICK.

* * * The Diamond Dyes always do more than they claim to do. Color over that old dress. It will look like new. Only 10 cents.

THE emigrant, tourist, or traveler, bound for the productive mines and fertile prairies of the Great Southwest, is unanimous in selecting the route via Chicago. This route is placed in the Kansas City pioneer line, composed of the C. B. & Q. and Old Reliable Hannibal & St. Joseph Railroads. Through fast trains are run by this line, and the equipment is unsurpassed.

COMMERCIAL.

DETROIT WHOLESALE MARKET.

DETROIT, October 24, 1882.

Flour.—Receipts for the week, 3,820 bushels, weighing 5,640 bushels. The inquiry is sufficient to take all stock offering, and maintain prices at former rates. Local millers report a good trade with their mills running to capacity. Stocks are light both in first and second hands. We quote:

White wheat, roller process..... \$ 5.75
Fancy white (city mill)..... 5.25
Choic white wheat (country)..... 4.75
Minneapolis..... 5.00
Minnesota, patent..... 5.75
Rye..... 9.00

Wheat.—Yesterday was a dull day on the wheat market, and trading was slow. There was some in query for cash wheat at the early board, but later the market was lifeless, closing weak at a decline in all grades from Saturday's price. The lower grades of white were very dull. Closing prices were as follows: No. 1 white, 99¢; No. 2, 96¢; No. 3, 90¢; No. 4, 78¢; rejected, 68¢. In future last sales were at the following range: October, 99¢; November, 95¢; December, 98¢; January, 99¢; February, \$1.01.

Corn.—The market is well ensained but quiet. Three or four carloads of No. 2 corn were sold yesterday at 73¢/bush., and the market at that rate was still.

Oats.—Have been quiet. Yesterday a carload was sold at 38¢, but afterwards they were pushed at 38¢/bush. and finally at 38¢, but could not be placed.

One carload of No. 2 white oats was sold at 41¢/bush. and one carload of white oats on track by sample at 39¢.

Barley.—Receivers still quote at \$1.06/bush per 100 lbs for good; if not its tonic properties will do no harm; mustard applications to the joints are good. The animal should not be used for heavy work, until entire recovery takes place. Send us symptoms more clearly defined, and we will advise you what course of treatment to adopt.

Butter.—Quotations are 25¢/lb per lb for choice, with light receipts. Of the lower grades stocks are ample and market weak and unsettled. Choice lots are frequently taken above quotations. Choice butter is not to be had, and would undoubtedly command 28¢/lb per lb above stock.

Cheese.—Fine full cream stock is firm at 12¢/lb., and second quality at 11¢/lb per lb. Demand good.

Eggs.—Market bare of fresh stock. Quotations are 28¢/lb per doz.

Beaswax.—Invoices of pure quoted at 30¢/lb; in stock it is held at 25¢/lb.

Onions.—Market quiet. Prices range about 15¢ per lb.

Beans.—Buyers offer \$1 to \$5 per bush. for new unpicked. Handpicked are worth \$10 per bush.

Dried Apples.—Stocks are light and the market firm at 6¢/lb for common; evaporated are quoted at 15¢.

Apples.—Market steady at about \$2.25/250 per lb, fair to good stock, with choice commanding 25¢/lb more per doz.

Pears.—Market quiet, with good fruit selling at \$2.20/250. Receipts very light.

Quinces.—Few are being received. Quotations are \$3 per bush. or \$5 per bush.

Peaches.—The supply is quite limited, but appear to be all that is required. Quotations range from \$1.25 to \$2 per bush.

Green.—Market bare of fresh stock. Quotations are 28¢/lb per doz.

King's Yards.—MONDAY, Oct. 23, 1882.

CATTLE.

The market opened up at these yards with 376 head of cattle on sale, and a good attendance of buyers.

There was but few good cattle among the receipts, the bulk being made up of young fat headed cattle and rough butchering stock. The market ruled active, and prices were fully as high as those of last week.

Green sold Gleason a mixed lot of 6 head of thin butchers' stock av 750 lbs at \$7.50.

Manfull sold Webb Bost 60 lbs at \$7.50.

Taylor sold Hammon 45 lbs at \$7.50.

Stevenson sold Webb Bros 60 lbs at \$7.50.

Stevens sold Webb Bros 83 lbs at \$6.75.

Hagerman sold Webb 49 av 205 lbs at \$7.50.

Brown sold C. Ross 62 lbs at \$7.50.

Patton sold Switzer & Ackley 71 lbs at \$7.50.

Taylor sold Moys 40 av 98 lbs at \$8.00.

Adams sold John Downs 185 lbs at \$8.00.

Taylor sold Down 101 av 75 lbs at \$8.00.

Taylor sold Moys 45 lbs at \$8.00.

Taylor sold Moys 4